

501. A number of factors might be used by the processor in determining that orientation is changed, for example, whether both touch sensor areas **505** are grabbed, whether the detected grab or grabs last for a predetermined period of time, whether the detected grab or grabs are whole-handed grabs, i.e., most if not all of the user's hand contacts the touch sensor area, and other factors.

[0034] In other embodiments, a system for transitioning between a high-resolution input mode and a low-resolution input mode could include, for example, any combination of the foregoing example systems. For example, one embodiment could utilize an accelerometer in combination with rotation sensors at two hinges of an adjustable stand. Another embodiment could utilize an accelerometer in combination with a single one rotation sensor. Yet another embodiment could utilize a combination of rotation sensors and touch sensor areas. Furthermore, the invention is not limited to the use of particular sensors, types of sensors, sensor locations or placements, etc. In view of the present description, one skilled in the art will readily recognize that many different types of sensors could be utilized in many different configurations and combinations to detect the orientation of a display screen according to embodiments of the invention.

[0035] As described above, when a change between a high-resolution input orientation and a low-resolution input orientation is detected, a process to transition between a UI of the high-resolution input mode and a UI of the low-resolution input mode is performed. FIGS. **6**, **7** and **8** illustrate an example method of transitioning between a low-resolution input mode UI, for example, a touch input mode UI, and a high-resolution input mode UI, for example, a mouse/keyboard input mode UI. FIG. **6** shows an example high-resolution input mode UI **600**, which is displayed on a display screen **601**, that uses mouse/keyboard input. UI **600** includes a menu bar **603** having menu bar items **605**, drop-down list items **606**, a dock **607** having dock items **609**, an application window **611** for a photo-editing software application having directory items **613**, scrollbars **615**, thumbnail images **617**, buttons **618**, and a mouse pointer **619**. Using high-resolution input devices, such as a mouse, a user interacts with high-resolution input mode UI **600** to select, manipulate, edit, etc., objects displayed on display screen **601**. For example, in a typical photo-editing application, such as the one displayed in application window **611**, the photos are the objects being selected, edited, etc. To manipulate a photo in a mouse-driven input mode, for example, the user typically selects the photo by moving the mouse pointer over the photo and clicking a mouse button, moves the mouse pointer over a menu bar, selects a menu bar item to display a drop-down list of items corresponding to available functions (e.g., darken/lighten, crop, zoom, etc.), and uses the mouse pointer to select an item from the list to apply the corresponding function to the photo. For example, to zoom-in on a point in a photo image, a user typically selects the image with the mouse pointer, selects the "zoom" item from a drop-down list (which might change the appearance of the mouse pointer to a magnifying glass with a "+"), hovers the mouse over the point in the photo on which the user wishes to zoom-in, and clicks the mouse button multiple times to zoom a desired amount.

[0036] In contrast, some low-resolution input mode UIs might allow users to select, manipulate, edit, etc., objects without having to access UI items such as drop-down lists, for example, by touching the object the user wishes to edit and then performing a gesture on the touch screen display. For

example, to zoom-in on a particular point in a photo image, a user might touch his or her thumb and index finger to the point and perform a reverse-pincer gesture. The touch-driven interface can identify the touch of the finger and thumb and the motion of the finger and thumb as they are spread apart in the reverse-pincer gesture as an input combination that activates the zoom-in function. Thus, some functions may be performed in touch-driven interfaces without accessing a menu item, button, etc., typically displayed in a high-resolution input mode UI.

[0037] On the other hand, some functions performed by some high-resolution input mode UI items might not have a corresponding function in a touch-driven interface. In other words, the functionality of a touch-driven interface might be reduced in comparison to the functionality of mouse/keyboard-driven interface.

[0038] In addition, some of the items included in high-resolution UI **600**, such as menu bar items **605**, drop-down list items **606**, scrollbars **615**, dock items **609**, and directory items **618**, might be difficult to select by touching the screen with, for example, a finger or thumb because these objects are relatively small. Consequently, it might be desirable not to include some high-resolution input mode UI items in a low-resolution input mode UI, such as a touch-driven interface.

[0039] On the other hand, it might be desirable to include some other items in high-resolution input mode UI **600** in a low-resolution input mode UI, but the items might be too small to be easily selected with touch. For example, buttons **618** might perform functions that have no corresponding gestures in a touch-driven interface.

[0040] FIG. **7** illustrates one example method of transitioning from high-resolution input mode UI **600** to a low-resolution input mode UI according to embodiments of the invention. FIG. **7** shows a transition effect **700** image in which certain items of UI **600** appear to "slide off" the edges of display screen **601**. Specifically, menu bar **603** along with menu bar items **605**, dock **607** along with dock items **609**, directory items **613**, scrollbars **615**, and mouse pointer **619** each appear to move towards the closest edge of screen **601**, and continue to move off of the screen until they disappear from view. FIG. **7** also shows other items of UI **600** appearing to increase in size. Specifically, transition effect **700** appears to zoom-in on application window **611**, thumbnail images **617**, and buttons **618**.

[0041] FIG. **8** illustrates an example low-resolution input mode UI **800** that is displayed after transition effect **700** is completed. Menu bar **603**, menu bar items **605**, dock **607**, dock items **609**, directory items **613**, scrollbars **615**, and mouse pointer **619** are no longer visible on display screen **601**. UI **800** displays enlarged versions of application window **611** (**811**), thumbnail images **617** (**817**), and buttons **618** (**818**).

[0042] As a result of the foregoing example transition method, high-resolution input mode UI items that need not be displayed in a low-resolution input mode UI, for example, items that have corresponding gestures in the touch-driven interface and items that have no corresponding functionality in the touch-driven interface, can be removed from view. This can provide a less cluttered view, and can allow more room on the display, for example, for more important/relevant items to be enlarged for easier touch input.

[0043] In order to transition from the low-resolution input mode UI to the high-resolution input mode UI, transition effect **700** can, for example, simply be reversed.